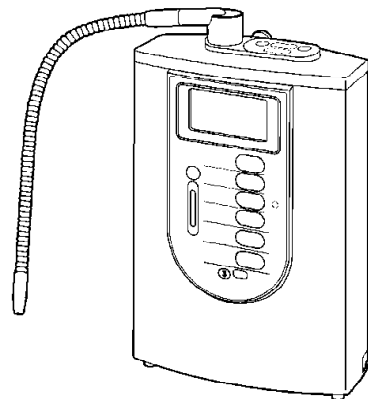


ORDER NO. LSD0506T19C3

**Alkaline Water Maker
TK7505-T3**



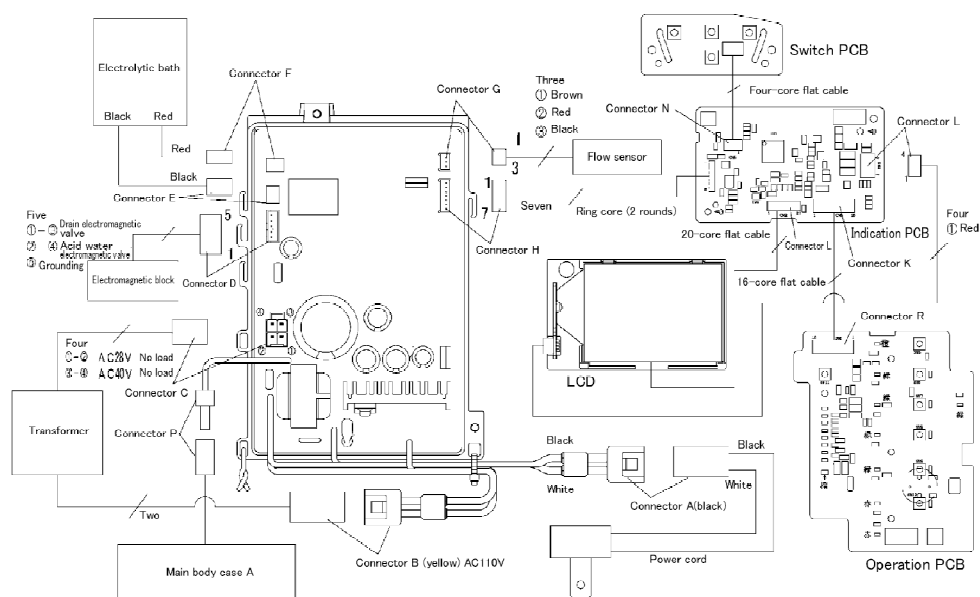
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Panasonic

1. SPECIFICATIONS

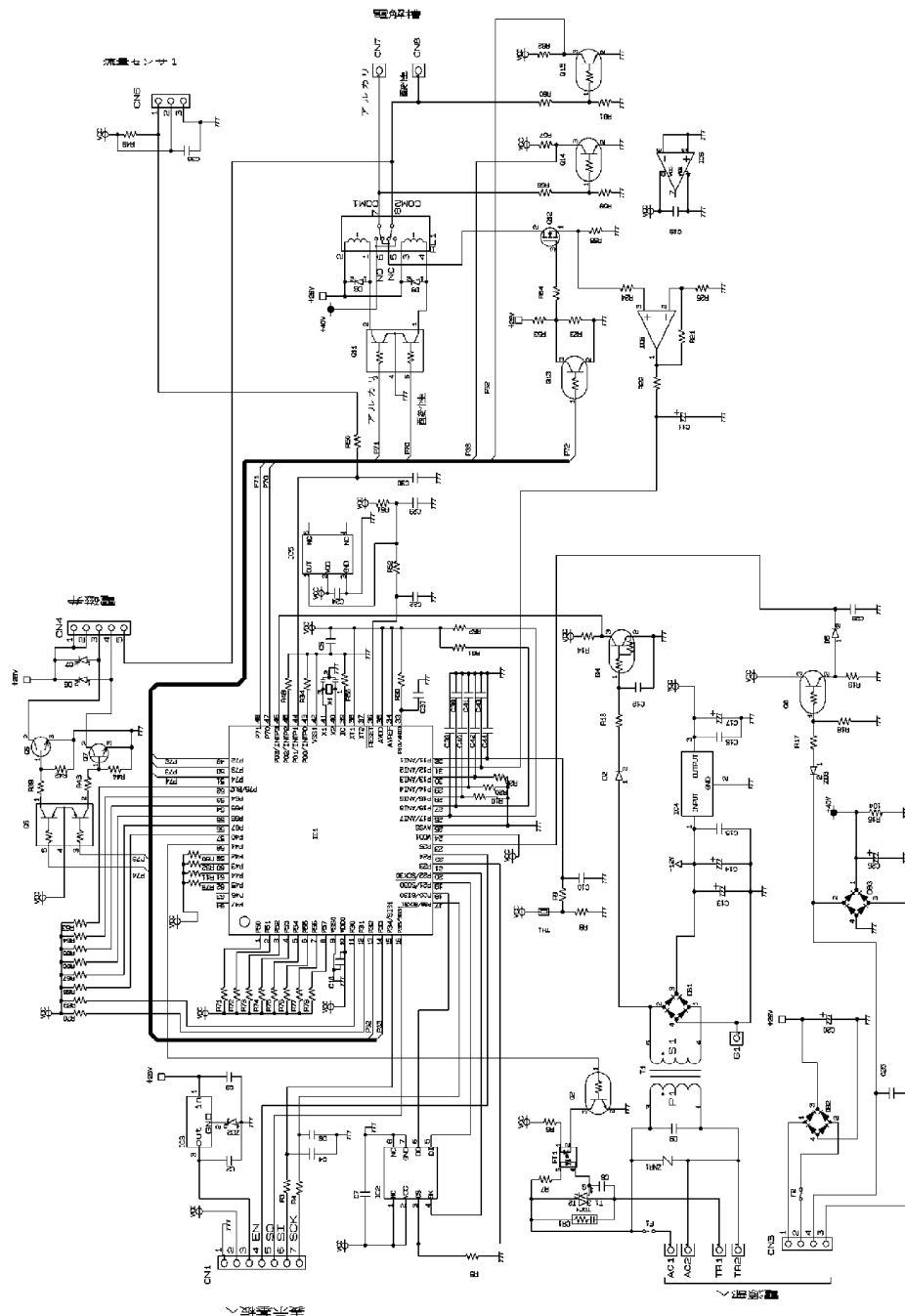
Power supply		AC110V 60Hz	
Pump consumption		approx. 230W (Max.); approx. 0.7W at standby	
Medical Device Manufacturing Approval No.		21700BZZ00018000	
Main unit	Dimensions	318 (H) x 200 (W) x 123mm(D)	
	Weight (full water level)	approx. 5.1kg	
Usage water temperature		Less than 35°C(at Water exchange lever less than 80°C)	
Usable water pressure (running water)		70 kPa – 350 kPa	
Maximum water pipe pressure (Static water)		70 kPa – 750 kPa	
Electrolysis system		Continuous electrolysis system	
Electrolysis	Treated water volume (water discharge volume)	2.0L/minute (at 100 kPa water pressure) 3.0L/minute (at 200 kPa water pressure)	
	Electrolysis selection	Alkali: 4 levels, Acid: 2 levels	
	Continuous duty time	approx. 1 hour	
	Electrolytic cleaning	Automatic cleaning	
Water purifier	Filter		Hollow fiber, Activated carbon, Ceramic
	Filter capacity	Residual chlorine	12,000L
		Impurities	12,000L
		Total trihalomethane	12,000L
		Dissoluble lead	12,000L
		2-MIB	12,000L
	Cartridge life-time		12 months when used at 30L/day.
Components of Cartridge		Cloth, activated carbon particles/powder, ceramic, hollow fiber	
Removable ingredients		Residual chlorine, muddiness, total trihalomethane, dissoluble lead, 2-MIB	
Not removable ingredients		Iron dissolved, heavy metals, salt	
Length of power cord		approx. 2m	
Protector		Current fuse 5A	

2. PICTORIAL WIRING DIAGRAM

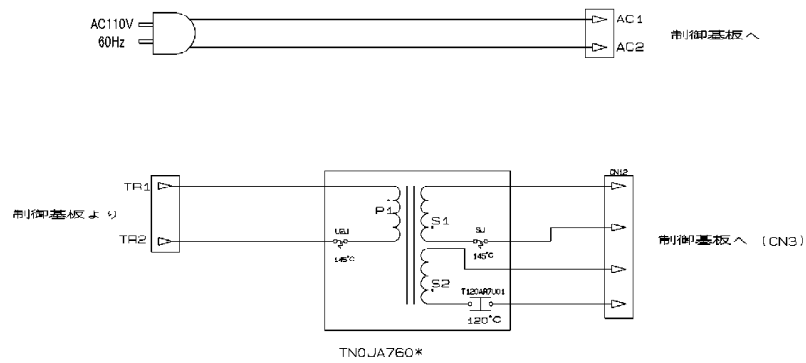


3. PCB DIAGRAM (for reference)

3.1. CONTROL PCB (MAIN PCB)



3.2. INDICATION PCB (INDICATION PCB, OPERATION PCB, SWITCH PCB)



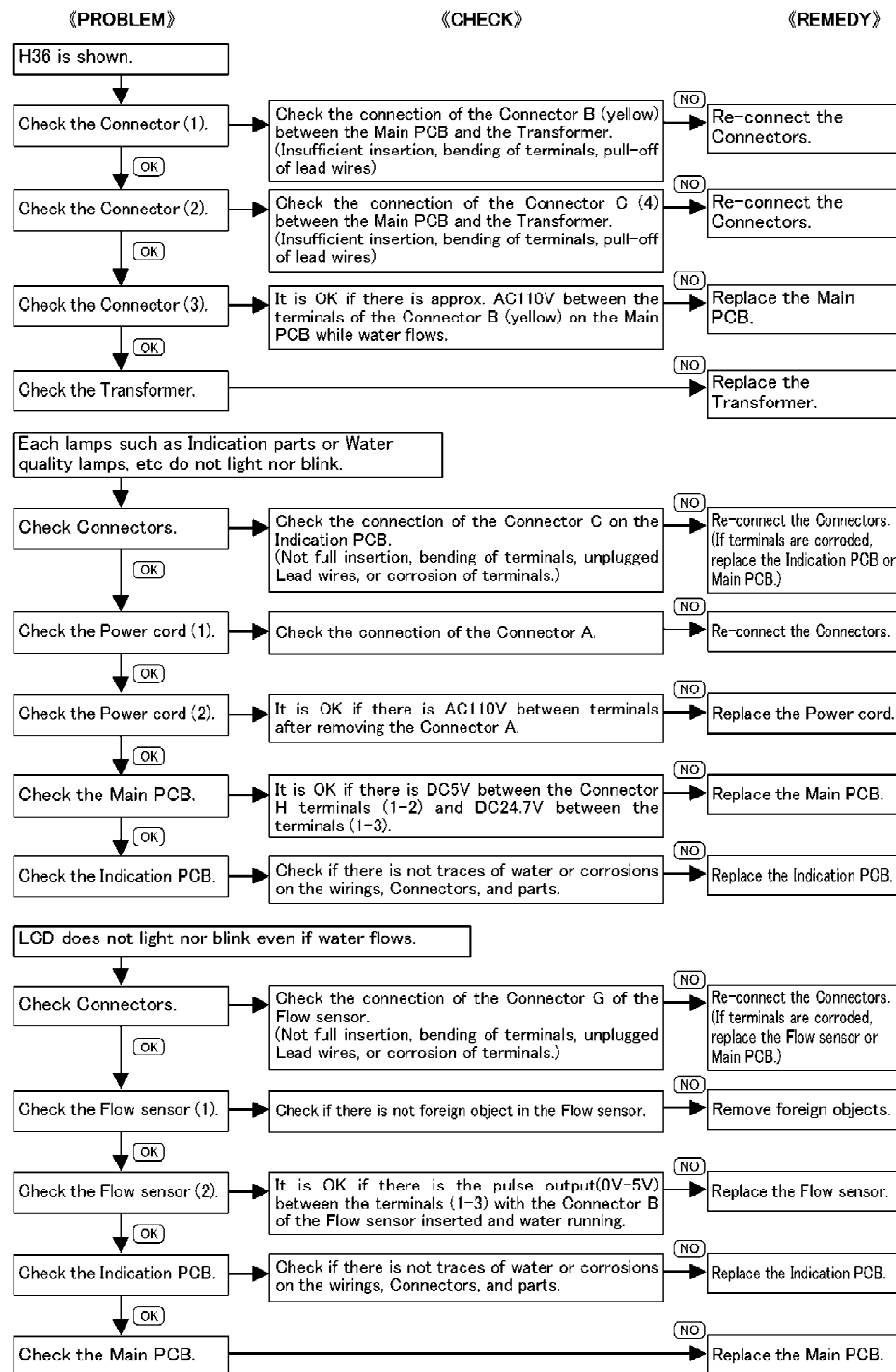
4. MALFUNCTION ANALYSIS

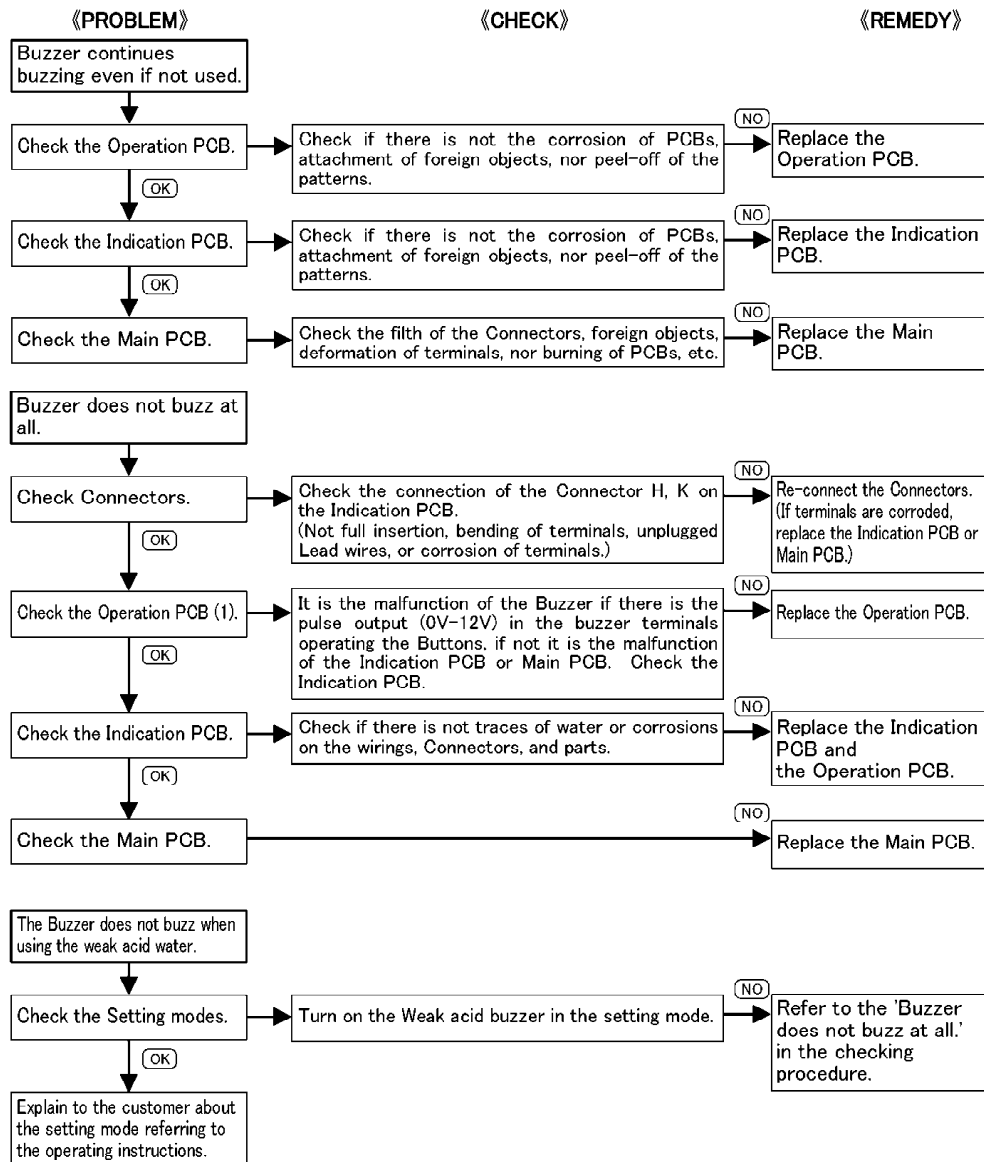
4.1. ABNORMALILY INDICATION

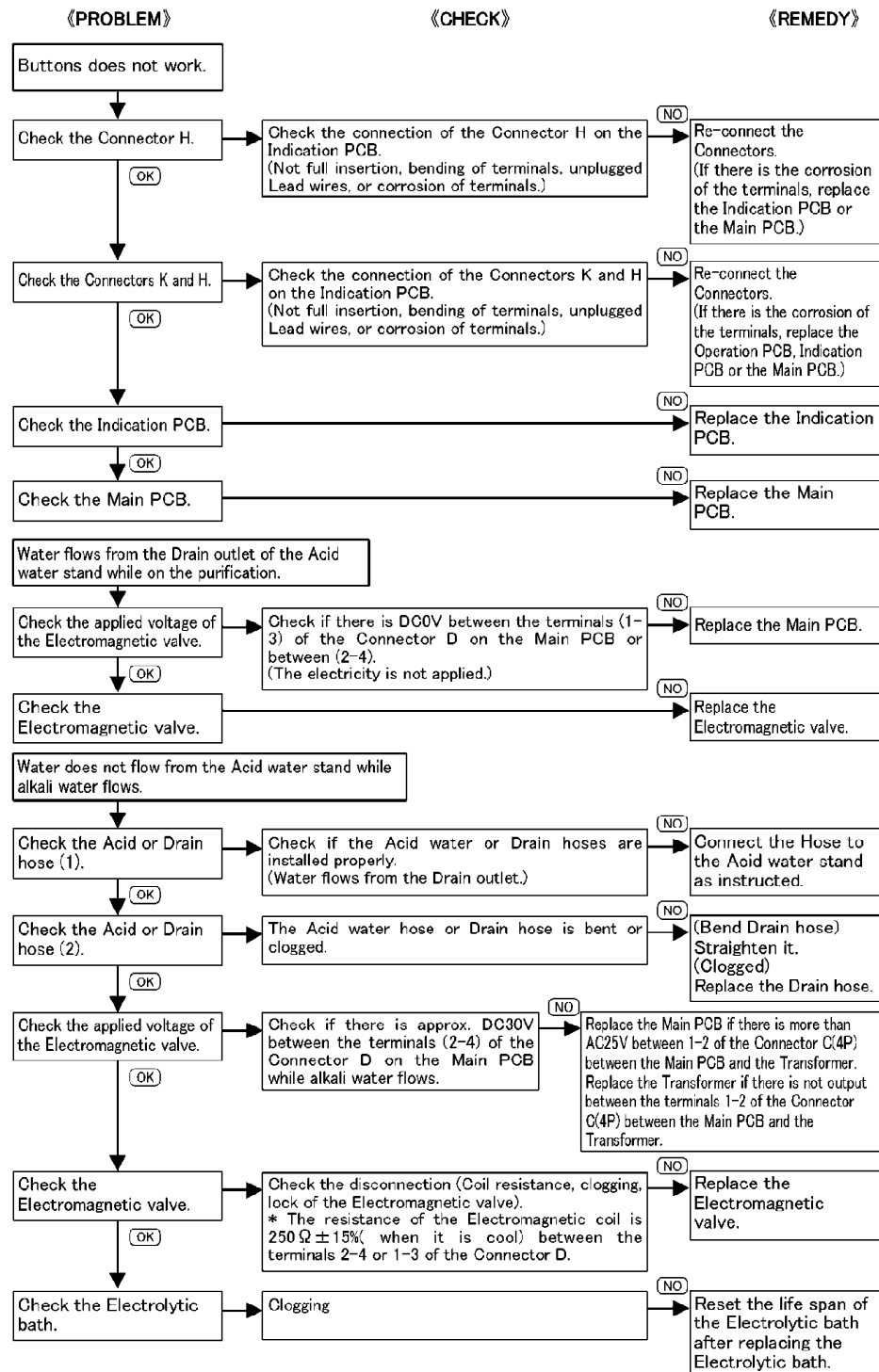
Indication	Abnormality	Details
U21	Sensing of extra currency	If the extra currency flows in the Electrolytic bath, the electrolysis stops for the protection of the product. (Water runs from the Outlet.) → Close the faucet and wait about 30 minutes to resume the usage. * It may take more than 30 minutes due to the reasons of water quality or environment.
U22	Increase of the temperature of the Transformer	If the temperature of the Transformer increases due to the continuous flow of water, etc, the thermal protection works and stop the electrolysis. (Water runs from the Outlet.) → Close the faucet and wait about 30 minutes to resume the usage. * It may take more than 30 minutes due to the reasons of water quality or environment.
U23	Increase of the temperature of the Main PCB	If the temperature of the Main PCB increases due to the reasons of the continuous flow of water, etc, the electrolysis stops for the protection of the product. (Water runs from the Outlet.) → Close the faucet and wait about 30 minutes to resume the usage. * It may take more than 30 minutes due to the reasons of water quality or environment.
U25	Life span of Cartridge (Clogging) Lack of flow amount	The flow amount does not exceed 1.2L. (If water flows, the flow amount is indicated on the Indication panel.) - Faucet is open? → Open the faucet. - Water supply hose is not bent? → Straighten it if so. - The junction of the Water exchange lever is not clogged with dusts? → Wash the filter of the junction of the Water exchange lever and the water inlet. (Refer to the Instruction manual.) * If the flow amount does not exceed 1.2L/min. after conveying the above procedures, it is the life span of the Cartridge due to the clogging. → Replace the Cartridge and the reset the life span of the Cartridge. * If the situations are not solved or water pressure is low, it would be due to the clogging of the faucet.
U26	Life span of the Cartridge (Total flow amount)	The total usage flow amount exceeds the life span of the Cartridge. → Replace the Cartridge and reset the life span of the Cartridge.
U27	Flow time is longer than the continuous electrolysis time.	If the flow time exceeds the continuous usage time, the electrolysis stops for the the protection of the product. (Water runs from the Outlet.) → Close the faucet and wait about three minutes.
U28	Forecast of the life span of the electrolysis bath	It is the forecast of the life span of the electrolysis. (Electrolysis time: accumulative approx. 847 hours) → Replace the Electrolytic bath. The life span of the Electrolytic bath is approx. 850 hours. Stop the water and unplug/replug the plug, then you can use the rest three hours(10min./day, three weeks).
H31	Life span of the electrolysis bath	It is the life span of the electrolysis bath. (Electrolysis time: accumulative approx. 850 hours) → Replace the Electrolysis bath.
H32	Abnormality of electrolysis relay	The Relay on the Main PCB is broken. → Replace the Main PCB.
H33	EEPROM memory error	The memory of the Main PCB is broken. → Replace the Main PCB.
H34	Sensing of the abnormal currency	The FET of the Main PCB is broken. → Replace the Main PCB.
H35	Abnormality of electrolysis relay	The Power source relay on the Main PCB is broken. → Replace the Main PCB. *While in the standby mode, the Power source relay shuts the currency running through the Transformer to save the electricity.
H36	The thermal protection does not work.	The condition of the U22/15 mins is counted as one, and the 16 cases happen, then it shows the error. → Proceed the checking procedures.
H38	Other abnormalities	The FET, Electrolysis relay, and Power source relay on the Main PCB are broken at the same time. → Replace the Main PCB. * The currency continues running through the Electrolytic bath while the water flow stops. Replace the Electrolytic bath if the water in the Electrolytic bath boils, which may lead to the deformation of the Electrolytic bath or the leakage.

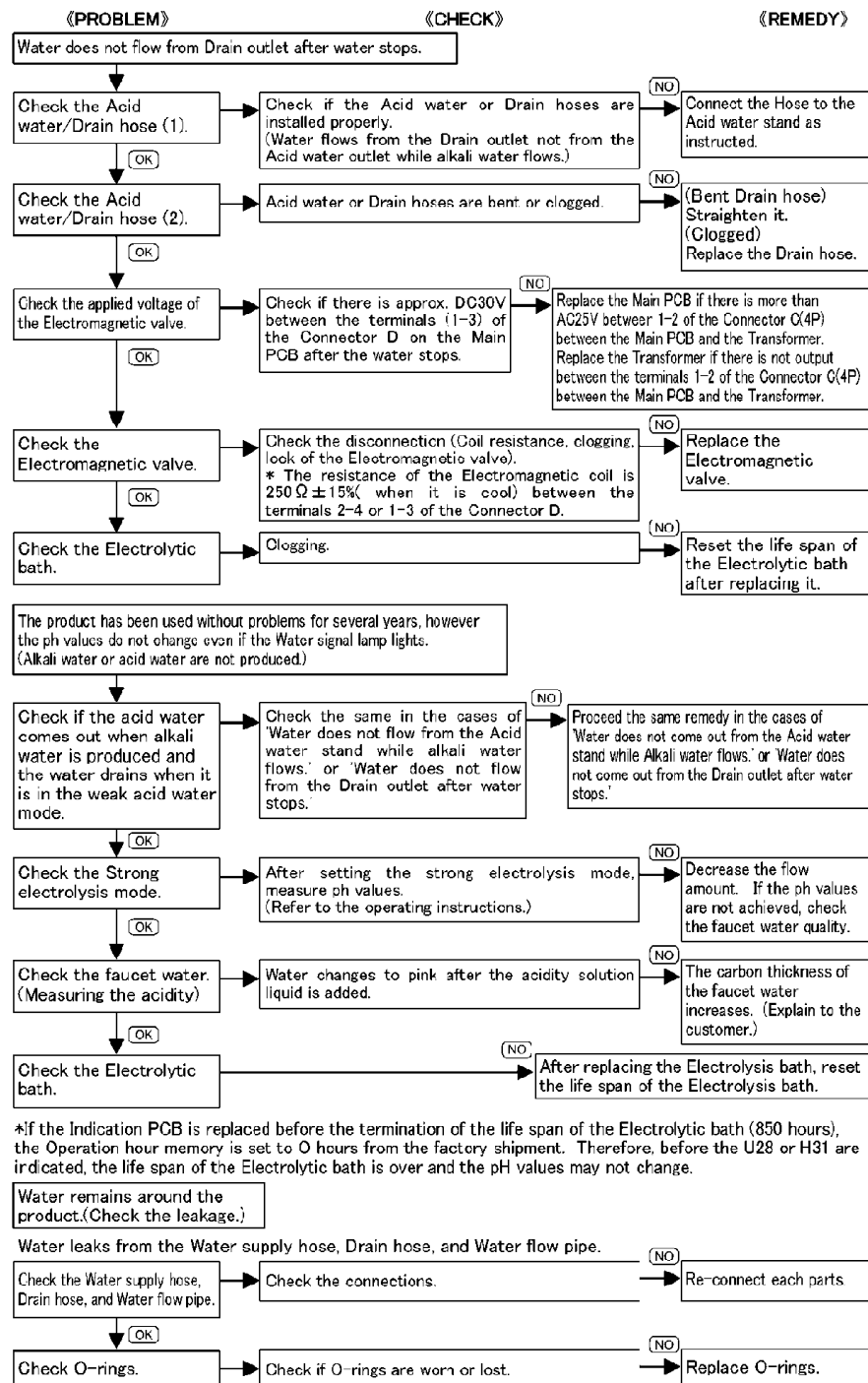
Notice: — Abnormal indications are categorized as follows:
 Uxx — Customers can take care of this abnormality.
 Hxx — Repair the product based on the abnormality indication.

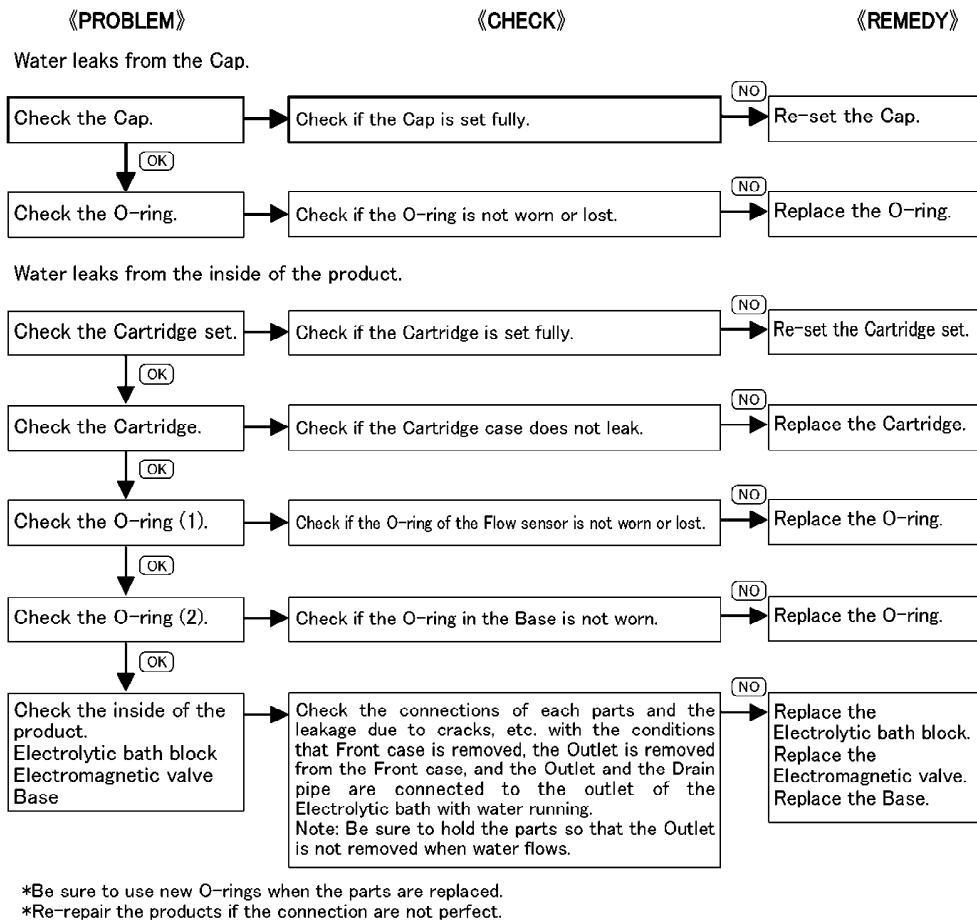
4.2. TROUBLESHOOTING GUIDE











5. DISASSEMBLY

When disassembling, be sure to drain water so that water drops do not drop on the PCBs or wirings. And be sure to stand the product while in work.

Be sure to convey the countermeasures for the static electricity wearing wrist band, etc.

Note: Check if the alkali water pH9 to 10 is produced by Alkali 3 and the acid water pH5 to 6.5 is produced by Weak Acid using the pH solution set.

- Unplug the Power plug before the disassembly.
- Close the faucet in advance and pull out the Water supply hose from the Water exchange lever, and the Acid water hose or Drain hose from the Acid water stand.
- Before disassembling, remember the parts compositions and wirings.
- When disassembling, some residual water comes out. Be sure to work on proper spots.
- The colors in the texts show the colors of the Connectors.

5.1. DISASSEMBLY OF MAIN BODY

1. Unplug the Power source plug and re-plug it.

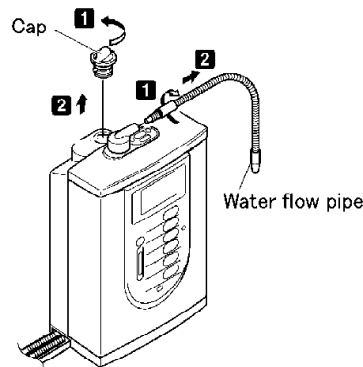
- 'Preparing' is shown on the LCD for approx. 15 seconds and water comes out from the Drain outlet.
- Convey this procedure for a couple of times and unplug the Power source plug.

2. Remove the Water flow pipe from 1 to 2 as shown.

3. Remove the Cap from 1 to 2 as shown.

4. Drain water inside.

- Hold the product upside down and drain water from the Outlet.

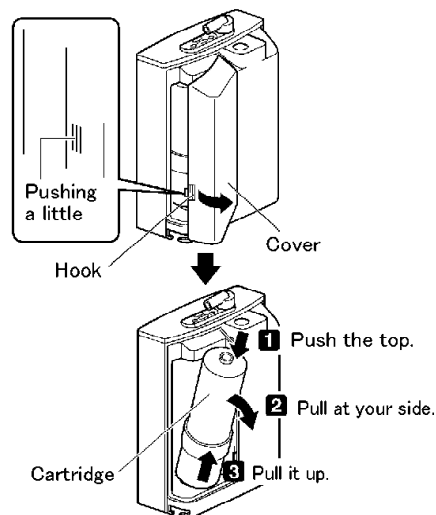


5. Remove the Cover.

- Pushing it a little, pull it at your side to remove it.

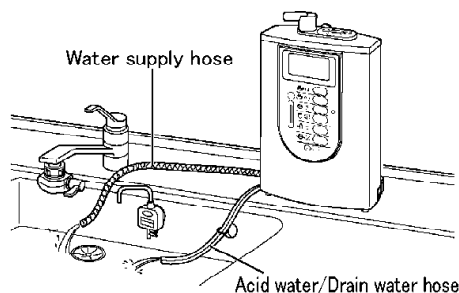
6. Remove the Cartridge from 1 to 3 as shown.

***Keep the Cartridge in the plastic bag till the installment so that dusts are not attached.**

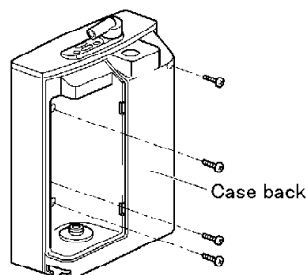


7. Drain water in the Hose.

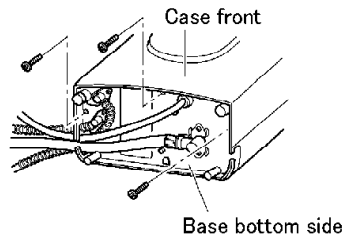
- Place the tip of the Water supply hose below the Main body.
- Remove the Acid water/Drain water hose from the Acid water stand and place it below the Main body.



8. Unscrew screws on the Case back.

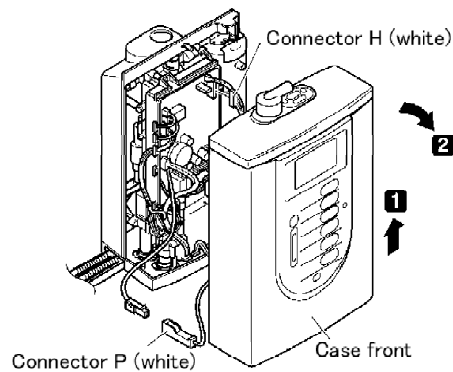


9. Unscrew screws on the Case front.



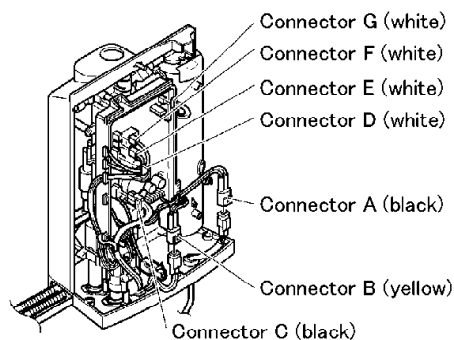
10. Remove the Case front.

- Lift the Case front about 20mm and pull it toward you to remove it.
- Remove the Connector H and P on the Indication PCB from the Main PCB.



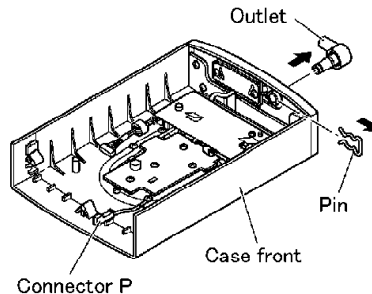
11. Remove the Connectors on the wirings.

- Remove all the Connectors on the Main PCB (A to G).
- * When you remove the Connector G, do not pull the Lead wire but hold the Connector when removing.



5.2. DISASSEMBLY of OUTLET

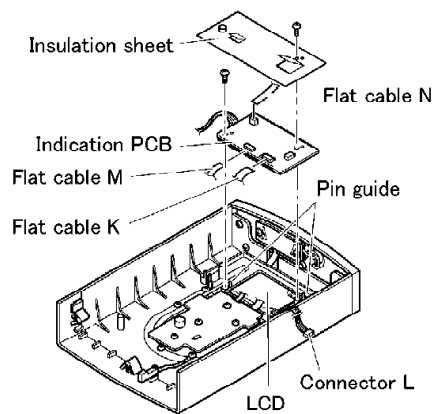
1. Remove the Pin with pliers, etc.
2. Remove the Outlet pulling upward.



5.3. DISASSEMBLY OF INDICATION PCB AND LCD

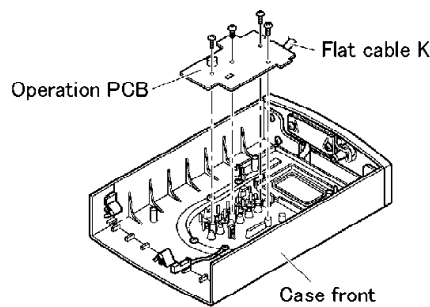
1. Remove the Insulation sheet.
 - Unscrew a screw.
2. Remove the Flat cable K from the Indication PCB.
 - Pull the lock of the Connector at your side to remove it.
3. Remove the Flat cable M from the Indication PCB.
 - Pull out the Connector.
4. Remove the Flat cable N from the Indication PCB.
 - Pull out the Flat cable.
5. Remove the Connector L from the Indication PCB.
6. Remove the Indication PCB unscrewing a screw.
7. Remove the LCD.
8. Replace the Indication PCB or the LCD.

- * Insert the two Pin guides to the hole of the PCB surely when assembling the Indication PCB.
- * Remove the filth of dust on the LCD or panel.



5.4. DISASSEMBLY OF OPERATION PCB

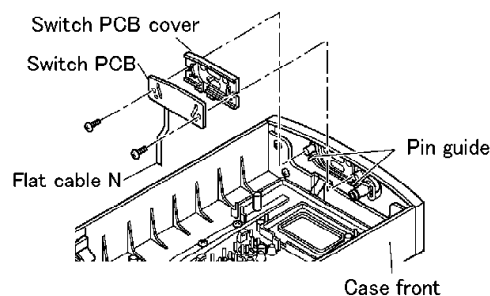
1. Remove the Flat cable K from the Indication PCB pulling the lock of the Connector to you side.
2. Remove the Operation PCB unscrewing four screws.



5.5. DISASSEMBLY OF SWITCH PCB

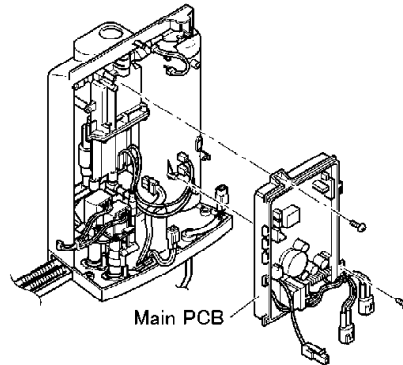
1. Remove the Flat cable N from the Indication PCB pulling it upward.
2. Remove the Switch PCB and the Switch PCB cover unscrewing two screws.

*** Insert the two Pin guides to the holes of the PCB and the Cover.**



5.6. DISASSEMBLY OF MAIN PCB

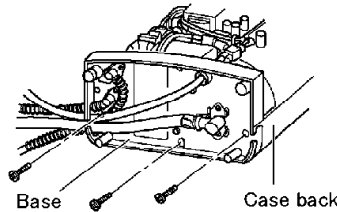
1. Remove the Main PCB unscrewing two screws.
2. Replace the Main PCB.



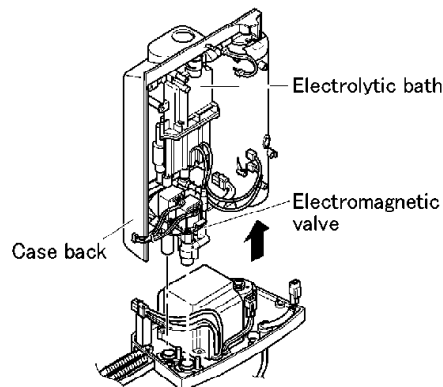
5.7. DISASSEMBLY OF ELECTROLYTIC BATH AND FLOW SENSOR

- Remove the Main PCB in advance.

1. Unscrew three screws on the bottom of the Base.



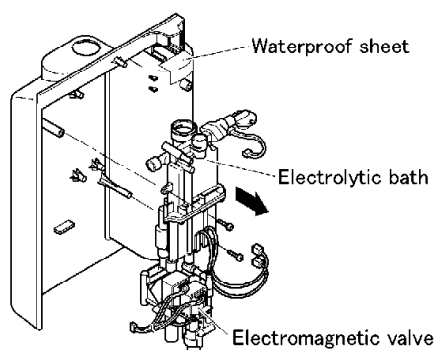
2. Remove the Case back, which are the Electrolytic bath and the Electromagnetic valve.



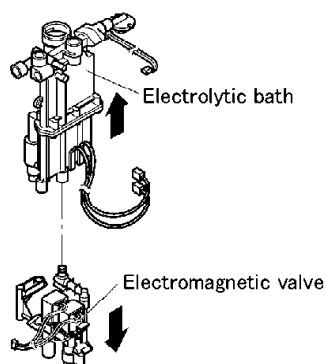
3. Remove the Electrolytic bath with the Electromagnetic valve

unscrewing two screws.

*** Be careful not to tear the Waterproof (black) when removing the Electrolytic bath.**



- 4. Remove the Electromagnetic valve pulling it downward from the Electrolytic bath.**



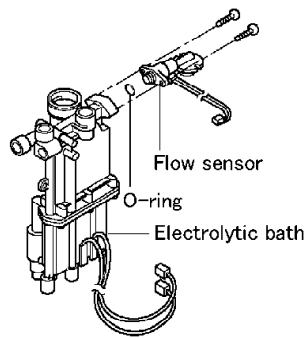
- 5. Remove the Flow sensor from the Electrolytic bath unscrewing two screws.**

*** Be careful of the lost of the O-rings.**

- 6. Replace the Flow sensor.**

- 7. Replace the Electrolytic bath.**

*** Reset the Operation time memory after replacing the Electrolytic bath referring to the following.**



*Operation time memory after replacing the Electrolytic bath

- The Operation time memory on the Main PCB memorizes the operation time(life span) of the Electrolytic bath. You need to reset the Operation time memory to 0 hour after replacing the Electrolytic bath.

How to reset the Operation time memory to 0.

1. Unplug the power source plug and wait till the LCD display goes off.(2-3 seconds)
2. Pushing the buttons of Indication change (表示切換) and the Alkali 2 (アルカリ2), plug the Power source plug. (It beeps five times and the display changed to the following.)

電解槽寿命
リセット
「決定」を押す

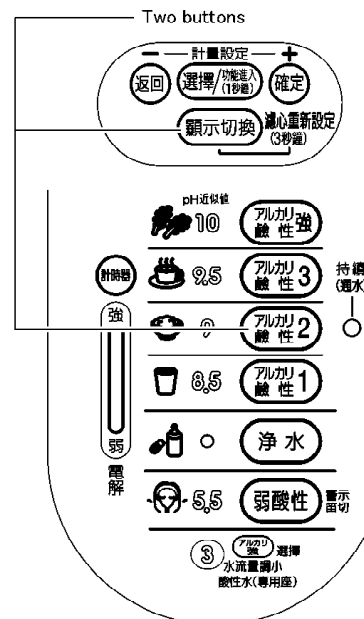
3. Push the button of confirmation. (確定) (It beeps and the displays the following for approx. three seconds.)

電解槽寿命
リセット完了

4. Unplug the Power source plug when the display changes to the following after three seconds.

電解槽寿命
約850時間

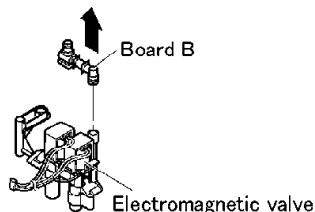
5. Re-plug the Power source plug after two to three seconds when the LCD display goes off. (It beeps and the product can be used.)



5.8. DISASSEMBLY OF ELECTROMAGNETIC VALVE

Remove the main PCB and the Electrolytic bath in advance.

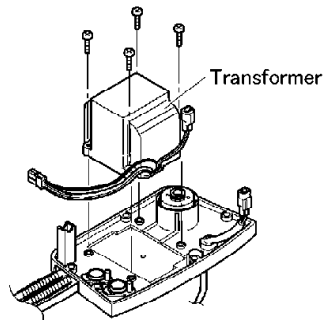
1. Remove the Board B pulling as the Figure.
2. Replace the Electromagnetic valve.



5.9. REPLACEMENT OF TRANSFORMER

1. Remove the Transformer unscrewing four screws.

2. Replace the Transformer.



6. CHECKING AFTER REPAIR

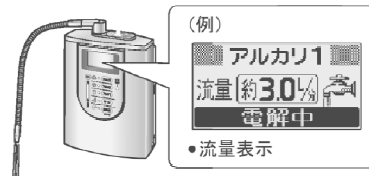
Checking	Check if abnormality is found	Remedy
Check the flow of water.	Check if the Water supply hose is not bent or crushed.	Straighten it.
Check if the water comes out from the Acid water outlet when the alkali ionized water is produced.	Check if the Acid water hose is not bent or crushed.	Straighten it, or refer to the Malfunction analysis.
Check if the water comes out from the Drain outlet when the weak acid water is produced.	Check if the Water drain hose is not bent or crushed.	Straighten it, or refer to the Malfunction analysis.
Check if the water stops from the Acid water outlet and the Drain outlet when the purified water is produced.	Check the Electromagnetic valve.	Refer to the Malfunction analysis.
Check if water does not leak on the connection of the Water exchange lever.	Check if the Water exchange lever is installed to the faucet surely.	Refer to the Operating instructions.
	Check if the parts of the Water exchange lever are installed correctly.	Install the parts correctly.
	Check if there is no crack on the tip of the faucet.	Explain to the customer and repair properly.
Check if the connection of the Water supply hose does not leak.	Check if the Water supply hose is installed to the Water exchange lever surely.	Install it firmly and fasten them with a nut.
Check if the Drain pipe does not leak.	Check if the Drain pipe is installed surely.	Screw it firmly.
	Check if the packing is installed to the Drain pipe or there is not worn or lost or spiral.	Install the Packing correctly. If there is worn or lost, replace it.
Check if faucet does not leak.	Check the parts of leakage.	Explain to the customer and repair properly.
Check if the Main body does not leak.	Check if the connection of the Cartridge does not leak.	Install the Cartridge firmly.
	Main body leaks inside.	Refer to the Malfunction analysis.
The pH values do not increase.	Check if the tip of the Drain hose is below the bottom of the Main body and the balance of the heights of the positions of the Outlet and the Drain hose is more than 10cm and less than 50cm.	Install them correctly. If the values do not increase after trying, refer to the malfunction analysis.

7. CHECKING OF FLOW AMOUNT

You can check the flow amount, which is the amount of water flowing from the Outlet and the Drain hose for one minute.

Push the button **顯示切換** till the Indication change changes to the Water flow.

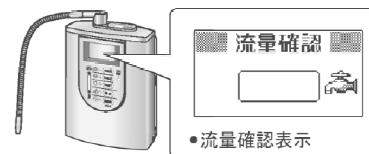
- Every time you push the button, the LCD display changes.
- While the water stops or with less than approx. 1/min, the values of water flow are not shown.



When the flow amount is not shown, you can check it by the indication of the flow amount confirmation.

1 Close the faucet and push the button of Purify **浄水** till the Buzzer buzzes four times (approx. three seconds).

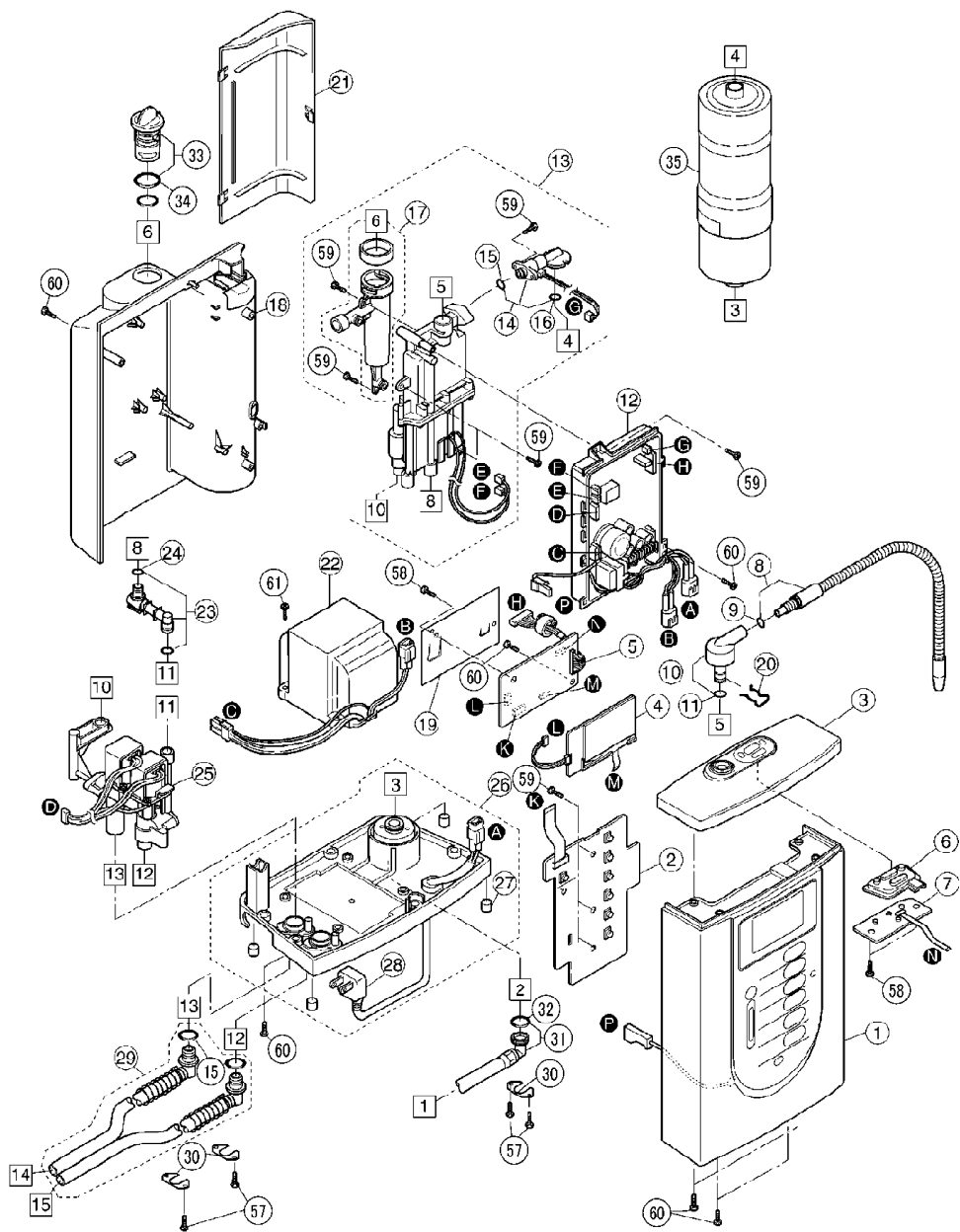
- If you push it again for approx. three seconds, the indication resumes to the original. And the water quality resumes automatically to the "Alkali" that previously used.

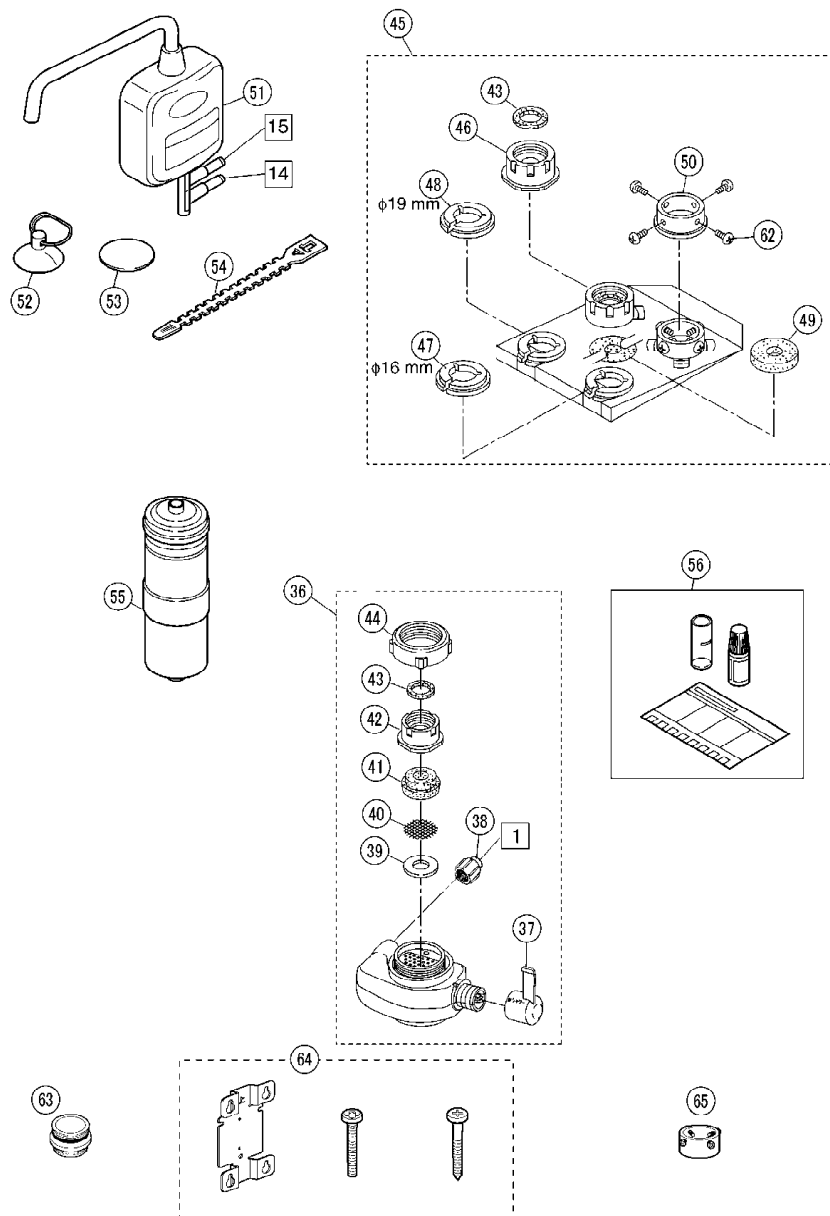


2 Open the faucet.

- If you close the faucet, the indication goes back to

8. EXPLODED VIEW





9. REPLACEMENT PARTS LIST

Ref. No.	Parts No.	Parts Name & Descriptions	Remarks	Per Unit
<u>1</u>	WTK7505S3108	CASE FRONT		1
<u>2</u>	WTK7505H2118	CONTROL PCB		1
<u>3</u>	WTK7505S3118	CASE TOP		1
<u>4</u>	WTK7405W2367	LCD		1
<u>5</u>	WTK7505H2127	INDICATION PCB		1
<u>6</u>	WTK7405H3137	SWITCH PCB COVER		1
<u>7</u>	WTK7405H2137	SWITCH PCB		1
<u>8</u>	WTK7505H7307	VENTILATION TUBE		1
<u>9</u>	WTK7405L0997	O RING(S9 EPDM)		1
<u>10</u>	WTK7405H0457	OUTLET		1
<u>11</u>	WTK7405L0907	O-RING(P9 EPDM)		1
<u>12</u>	WTK7505H2107	MAIN PCB		1
<u>13</u>	WTK7505L4447	ELECTROLYTIC BATH		1
<u>14</u>	WTK7405L2267	FLOW SENSOR		1
<u>15</u>	WTK7405L0917	O RING(P8 EPDM)		1
<u>16</u>	WTK7405L0927	O RING (P9 NBR)		1
<u>17</u>	WTK7505L0227	CALCIUM TUBE HOLDER		1
<u>18</u>	WTK7505S3128	CASE BACK		1
<u>19</u>	WTK7505I2257	INSULATION SHEET		1
<u>20</u>	WTK7405L9127	PIN		1
<u>21</u>	WTK7505H3127	COVER B		1
<u>22</u>	WTK7505L2238	TRANSFORMER		1
<u>23</u>	WTK7505H4027	BOARD B		1
<u>24</u>	WTK7405L0947	O-RING		2
<u>25</u>	WTK7505L1237	ELECTROMAGNETIC VALVE		1
<u>26</u>	WTK7505H3957	BASE		1
<u>27</u>	WTK7505L0947	RUBBER FOOT		4
<u>28</u>	WTK7405H2057	POWER CORD		1
<u>29</u>	WTK7505H0698	DRAIN HOSE		1
<u>30</u>	WTK7405L0217	FITTING		2
<u>31</u>	WTK7505H0607	WATER SUPPLY HOSE		1
<u>32</u>	WTK7505L0917	O-RING		1
<u>33</u>	WTK7505H0527	CAP		1
<u>34</u>	WTK7505L0927	O-RING		1
<u>35</u>	TK7505C1ZTA	CARTRIDGE		1
<u>36</u>	WTK7405H4097	WATER EXCHANGE LEVER		1
<u>37</u>	WTK7405H4007	LEVER		1
<u>38</u>	WTK7405H0897	NUT		1
<u>39</u>	WTK7405H0807	WASHER		1
<u>40</u>	WTK7405L2277	FILTER		1
<u>41</u>	WTK7405L0967	PACKING		1
<u>42</u>	WTK7405H4017	BOARD A		1
<u>43</u>	WTK7405L0977	PACKING		1
<u>44</u>	WTK7405H0817	NUT		1
<u>45</u>	WTK7205X7377	FITTING SET		1
<u>46</u>	WTK7405H4027	BOARD B		1
<u>47</u>	WTK7405L3727	INSTALL RING 16MM		1
<u>48</u>	WTK7405L3737	INSTALL RING 19MM		1
<u>49</u>	WTK7405L0007	INSTALL RING PACKING		1
<u>50</u>	WTK7405X7377	FITTING		1
<u>51</u>	WTK7505H3108	ACID WATER STAND		1
<u>52</u>	WTK7505L7887	SUCKER		1
<u>53</u>	WTK7405L3017	INSTALL BOARD		1
<u>54</u>	WTK7405L0747	HOSE BAND		1

Ref. No.	Parts No.	Parts Name & Descriptions	Remarks	Per Unit
55	WTK7505L0101	CARTRIDGE		1
56	WTK7405L8437	SOLUTION SET		1
57	WTK7405L9117	SCREW		4
58	WTK7405L9107	SCREW		12
59	WTK7205L9207	SCREW		8
60	WTK7505L9117	SCREW		10
61	WTK7505L9107	SCREW		6
62	WTK7205L9217	INSTALL SCREW		4
63	WTK7405L0628	JOINT D		1
64	WTK7505L0638	HOLDING PLATE FOR WALL		1
65	WTK7205X7378	FITTING		1
	WTK7505W8008	INDIVIDUAL BOX		1
	WTK7505W8018	OUTER CARTON		1
	WTK7505W8347	PAD A		1
	WTK7505W8337	PAD B		1
	WTK7405W8357	INSIDE PAPER A		1
	WTK7405W8367	INSIDE PAPER B		1
	WTK7505W8108	OPERATION MANUAL		1
	WTK7505W8038	CARTRIDGE BOX		1